



GEOGRAPHY

2230/02

Paper 2 Skills

October/November 2017

MARK SCHEME

Maximum Mark: 60

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

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Question	Answer	Marks	Guidance
1(a)(i)	State the four-figure reference for the grid square containing the village of Horningsea located in the north-east of the map. 4962	1	
1(a)(ii)	What is the distance along the river from 490625 to 480604? Describe the method you used and give your answer in kilometres. 2.3–2.7 (km) [RESERVE] measure along the river using a piece of paper / string convert using the scale / from cm to km	2	Credit measuring idea if poorly expressed but candidate appears to understand and has done it correctly.
1(a)(iii)	If you walk along the riverside from Horningsea to Cambridge city centre (grid square 4458), what is the number of the National Cycle Network you would meet? 11	1	
1(a)(iv)	Give a six-figure grid reference for the location where the A14 road crosses over the river. 483 / 4 616 / 7 or 436 / 7 616 / 7	1	
1(a)(v)	In which general compass direction is Cambridge city centre from Horningsea? SW	1	
1(b)(i)	Estimate the size of the built-up area shown on Fig. 1. 11–13 km ²	1	Need km ²
1(b)(ii)	Use the map extract to identify the developments at positions X, Y and Z on Fig. 1. Write your answers <u>on Table 1</u> below. new development position (X, Y or Z) hospital Y business park X road Z	3	

Question	Answer	Marks	Guidance
1(b)(iii)	<p>More than 2300 new houses are planned for the shaded area A on Fig. 1. Use map evidence to explain why this is a good location for new housing.</p> <p>flat land <u>for</u> ease of construction near railway <u>for</u> accessibility near Cambridgeshire Guided busway / light rapid transit system <u>for</u> access to town near road / motorway <u>for</u> transport near hospital <u>for</u> medical treatment when ill near school <u>for</u> children near government offices / business park <u>for</u> work open space / farmland <u>for</u> low cost of construction away from CBD <u>for</u> cheaper land near city <u>for</u> shops</p>	3	<p>Must explain but can be simple, examples shown Max. 2 for transport</p> <p>NOT water supply low land</p>
1(c)(i)	<p>If you travel to Cambridge by car from the south, which motorway exit would you take?</p> <p>11 / A1309</p>	1	<p>ALLOW M11</p> <p>NOT A1301 A1307</p>
1(c)(ii)	<p>Name <u>three other</u> types of transport, shown on the map, that can be used to travel to Cambridge.</p> <p>train / railway guided busway / bus / Park and Ride cycle (path) aeroplane / airport / helicopter boat / river / ferry / ship</p>	3	<p>NOT road motorway car motorcycle walk</p>

Question	Answer	Marks	Guidance
1(c)(iii)	Use map evidence to describe the tourist features shown in this area. Country Park Caravan site / camp site Golf Course Picnic site Nature reserve Parking / Park and Ride Viewpoint National Trail / European Long Distance Route	3	NOT cycle route cycle network resrs forest reserve Named places, e.g. Fox Hill farms park

Question	Answer	Marks	Guidance						
2(a)	<p>Compare the production and consumption of natural gas in Brunei between 2000 and 2012.</p> <p>Any three comparisons but no repetition.</p> <p>OVERALL Production (always) more than consumption The more production there is, the more consumption there is / they are directly proportional Difference 2000 same / similar to difference 2012 / 2000 and 2012 difference is c310 Both increase overall Production fluctuates more than consumption P increase from c350 to c425, C increases from c40 to c110 P increase by c75, C increases by c70</p> <p>SPECIFIC DATES (refer to Fig. 3 to check accuracy) 1 mark for each correct comment relating to any dates. No repetition, so only allow both increase or both decrease once unless slow, fast used. For example: 2000 both P and C lowest 2000 to 2003 both increase 2004 to 2005 P same, C increases 2006 to 2008 highest P and C / 2006 P highest, 2008 C highest 2006 – 2008 P decreases, C increases 2009 to 2012 both fluctuate / both increase then decrease</p>	3	<p>Must compare</p> <p>ALLOW + or – 5 for figures Only credit stats for overall comparisons.</p> <p>Question not from 2000 to 2012 so can be any comparison between those dates.</p>						
2(b)	<p>Use the information in the table below to <u>complete Fig. 4</u>, a pie chart showing Brunei’s exports in 2014.</p> <p>See overlay 1 mark for accurate line 1 mark for correct shading</p> <table><tr><td>product</td><td>percentage</td></tr><tr><td>oil</td><td>52%</td></tr><tr><td>gas</td><td>44%</td></tr></table>	product	percentage	oil	52%	gas	44%	2	<p>Can plot 52 or 44</p> <p>Ignore width of horizontal lines for oil or cross hatching for gas.</p>
product	percentage								
oil	52%								
gas	44%								

Question	Answer	Marks	Guidance
2(c)(i)	What percentage of Brunei's exports go to China? 2–4 (%)	1	
2(c)(ii)	Describe Brunei's export trade shown on Fig. 5. Only Asia and Oceania / mostly to Asia Japan biggest amount almost half / c45% to Japan South Korea second biggest / followed by South Korea c15% to South Korea India / Australia / New Zealand 6–8% Vietnam / Thailand / Indonesia / China small amount / <5% Singapore least amount / 2% New Zealand furthest	3	+ or – 1 for Japan, South Korea, Singapore NOT There are 10 different countries
2(c)(iii)	Suggest <u>one</u> reason to explain the amount of oil and gas exported to Japan from Brunei. Japan does not produce oil / gas Brunei is 'close' to Japan / both in Asia Japan is a major industrial country / large car manufacturing industry / many factories To generate electricity	1	NOT large demand on its own MEDC on own High population on own

Question	Answer	Marks	Guidance
3(a)(i)	<p>Five coastal features (A to E) are marked on Photograph A. Which letter on Photograph A shows each feature? Write your answers on Table 2 below. One answer has been completed for you.</p> <ul style="list-style-type: none"> • natural arch C • bay A / E • [cliff D] • beach E • headland B 	4	Allow E only once
3(a)(ii)	<p>Use evidence from Photograph A to suggest why tourists are attracted to this area.</p> <p>Sea + blue / calm / swimming / fishing / water sports, etc. Beach + sandy / golden / sun bathing / picnic / large, etc. Scenery / natural landscape / environment + dramatic / beautiful / photographs / coastal features / named feature Blue skies + good weather / sunny Footpath / hill + on cliff top / walking / bird watching Clean + beach / sea / no litter</p> <p>No repetition</p>	3	<p>NOT just: sea beach blue sky footpath scenery on own</p> <p>Nice view = 0</p>
3(b)(i)	<p>What is the general trend from 2002 to 2009 for both attractions shown on Fig. 6?</p> <p>Both increase / fluctuating</p>	1	
3(b)(ii)	<p>Which attraction received the greatest overall increase in visitors from 2002 to 2009?</p> <p>Corfe Castle</p>	1	
3(b)(iii)	<p>In which year did Corfe Castle receive more visitors than Swanage Steam Railway?</p> <p>2003</p>	1	

Question	Answer	Marks	Guidance
4(a)(i)	On Fig. 7 complete the bar graph using the data shown below the graph. See overlay	1	NOT needed: 70 above bar
4(a)(ii)	Compare the rate of growth of solar power before and after 2010. before 2010 slow, after fast / slower before 2010 / faster after 2010	1	Must refer to rate not just amount
4(b)(i)	What percentage of Brunei's energy production came from oil in 2010? 24(%)	1	
4(b)(ii)	Use Fig. 8 to describe the projected changes to Brunei's energy production between 2010 and 2035. Gas decrease by 8% oil increase by 6% solar contribution in 2035 / 2–3% / increases from 0 / introduced / new energy source	3	No credit for straight lift of figures. Need %
4(c)(i)	Describe the solar power plant shown in Photograph C. on flat land big / covers large area middle of grassy area fenced near housing / residential / settlement near road 4 areas of panels in rows tilted at angle / panels facing same direction blue colour in rows on concrete base rectangular panels	2	NOT Panels close together Near buildings Open area

Question	Answer	Marks	Guidance
4(c)(ii)	<p>Suggest <u>two</u> reasons why Brunei wants to develop renewable energy production such as the solar power plant shown in Photograph C.</p> <p>oil and gas non-renewable / finite / will run out / renewables won't run out to diversify / energy mix / so that not dependent on oil and gas oil / gas cause air pollution / renewables are clean / non-polluting / eco-friendly to reduce CO₂ emissions / global warming cost of oil and gas increasing Brunei suitable for ... because ...</p>	2	<p>Solar and other renewable = 0 as in stem of question. No double credit for opposites.</p> <p>NOT cheaper</p>

Question	Answer	Marks	Guidance
5(a)(i)	<p>A 'megacity' is a city with more than how many million people?</p> <p>10 (million)</p>	1	NOT 10 000 000 million
5(a)(ii)	<p>How many cities are in category 1 on Fig. 9?</p> <p>7</p>	1	
5(a)(iii)	<p>Name a megacity in Africa.</p> <p>Cairo / Lagos</p>	1	
5(a)(iv)	<p>Name a continent with no megacities shown on Fig. 9.</p> <p>Europe / Oceania / Antarctica / Australasia</p>	1	NOT Australia
5(b)(i)	<p>Which city is projected to have the greatest increase in population from 2010 to 2025?</p> <p>Delhi</p>	1	

Question	Answer	Marks	Guidance																																								
5(b)(ii)	<p>Complete Table 3 by ranking the five largest cities from 1 to 5 for 2025. Ranks 6–10 have been completed for you.</p> <table><tr><td>City</td><td>2010 pop (millions)</td><td>2010 rank</td><td>2025 pop (millions estimate)</td><td>2025 rank</td></tr><tr><td>Tokyo</td><td>36.9</td><td>1</td><td>38.7</td><td>1</td></tr><tr><td>Delhi</td><td>21.9</td><td>2</td><td>32.9</td><td>2</td></tr><tr><td>Mexico City</td><td>20.1</td><td>3</td><td>24.6</td><td>5</td></tr><tr><td>New York</td><td>20.1</td><td>4</td><td>23.6</td><td>6</td></tr><tr><td>Sao Paulo</td><td>19.6</td><td>5</td><td>23.2</td><td>7</td></tr><tr><td>Shanghai</td><td>19.6</td><td>6</td><td>28.4</td><td>3</td></tr><tr><td>Mumbai</td><td>19.4</td><td>7</td><td>26.6</td><td>4</td></tr></table>	City	2010 pop (millions)	2010 rank	2025 pop (millions estimate)	2025 rank	Tokyo	36.9	1	38.7	1	Delhi	21.9	2	32.9	2	Mexico City	20.1	3	24.6	5	New York	20.1	4	23.6	6	Sao Paulo	19.6	5	23.2	7	Shanghai	19.6	6	28.4	3	Mumbai	19.4	7	26.6	4	2	1 mark if ranks 1 and 2 correct 2 marks if ALL correct
City	2010 pop (millions)	2010 rank	2025 pop (millions estimate)	2025 rank																																							
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5(b)(iii)	<p>Describe <u>three</u> problems caused by the rapid growth of megacities.</p> <p>Lack of housing / shanty towns Lack of clean water Not enough power supply / electricity Poor sanitation / hygiene Overcrowding / traffic congestion Air / water / land / noise pollution Lack of health care / hospitals Not enough schools Unemployment / not enough jobs Crime Urban sprawl / deforestation / less farmland Increasing cost of land</p>	3	NOT Overpopulation Poverty Food Disease Note: Crime OK for this question but not Paper 1 question on population growth.																																								